



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,879	12/18/2001	Takahiro Shimada	424P055	6426

7590

04/01/2003

Kevin S. Lemack
Nields & Lemack
176 E. Main Street
Westboro, MA 01581

EXAMINER

NGUYEN, HUNG

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 04/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/022,879

Applicant(s)

SHIMADA, TAKAHIRO

Examiner

Hung Henry V Nguyen

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 2/23/2001. It is noted, however, that applicant has not filed a certified copy of the above application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Yabu, Shuichi (JP405067551A).

With respect to claims 1-2, Yabu discloses an aligner comprising all basic structures set forth in the claim such as: a base (2) for resting a to-be-exposed substrate (1) thereon and a sucking system (9-11) for sucking the to-be-exposed substrate on the base and the sucking device "being capable of sucking the to-be exposed substrate only at a part thereof"(via the control means 13, 14). The applicant is reminded that it has been held that the recitation that an

Art Unit: 2851

element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

4. Claims 1-2 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Document (JP-2002012352A).

With respect to claims 1-2, Document '2352A discloses an aligner comprising all of the basic features of the instant claims including a base for supporting a substrate (62) which is to be exposed and divided into several areas and a sucking source for sucking the substrate at only one desired part for exposure to light.

In view of the intervening effective filing date of this document, applicant is required to submit the certify copy of foreign application and applicant's attention is directed to the procedure set forth in MPEP § 201.15

5. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Dunn et al (U.S. Pat. 6,201,597).

As to claims, 1-3 and 6, Dunn et al discloses an exposure apparatus for transferring a predetermined pattern formed on a photomask (14) onto a substrate (10) comprising all of the limitations of the instant claims such as: a base (9) for supporting the substrate (10) thereon; the photomask (14) having a predetermined pattern formed thereon; moving units (16, 12) for moving at least one of the photomask and the base to change and set the positional relationship between the photomask the base; a light source unit (20) for exposing light for projection the pattern of the photomask onto the substrate; an aligning unit and a controller (30) for aligning the

Art Unit: 2851

photomask and the substrate in an arbitrary area of the substrate (see col.6, lines 101-13) and controlling the all elements of the exposure apparatus including the moving units, the aligning unit and the light source; a sucking unit having multiple sucking zones (see col.7, line 15-17) and each appropriate zone can be activated to hold the substrate (see fig.3).

As to claims 4-5, and 7-8, Dunn teaches the photomask is positioned vertically above the substrate and the photomask and the substrate are positioned with a spacing nearly in a horizontal direction.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi (U.S.Pat. 5,721,608) in view of Yabu, Shuichi (JP405067551A).

With respect to claims 1-8, Taniguchi discloses an exposure apparatus comprising substantially all of the structure set forth in the instant claims such as: a base (17) for supporting a substrate; a photomask (R) having a predetermined pattern formed thereon; a light source for illuminating and projection the pattern formed on the mask onto the substrate; a moving unit (13, 18) for moving at least one of the photomask and the base to change and set a relative positional relationship between the base and the photomask; an aligning unit (16, 21) for aligning the

Art Unit: 2851

photomask and the substrate; a control system (100) for controlling the moving unit, the alignment unit, the light source and a sucking unit for sucking the substrate to the base wherein the photomask is positioned vertically above the substrate and the photomask and the substrate are positioned with a spacing nearly in a horizontal direction (see fig. 1). Taniguchi does not expressly disclose the sucking unit "being capable" of sucking the substrate only a part thereof/or only a desired area. As discussed above, Yabu discloses an aligner having a base (2) for resting a to-be-exposed substrate (1) thereon and a sucking system (9-11) for sucking the to-be-exposed substrate on the base and the sucking device "being capable of sucking the to-be-exposed substrate only at a part thereof"(via the control means 13, 14). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Taniguchi and Yabu to obtain the invention as specified in claims 1-8. It would have been obvious to a skilled artisan to employ the sucking system as taught Yabu into the exposure device of Taniguchi so that the suction operation (for holding the substrate to the base) is performed independently at any individual suction regions. The purpose of doing so would have been to prevent reduction in suction power and the suction operation can be performed properly without damaging the surface of the substrate.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V Nguyen whose telephone number is 703-305-6462. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on 703-308-2847.

Application/Control Number: 10/022,879

Page 6

Art Unit: 2851

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.

hvn
March 26, 2003



HENRY HUNG NGUYEN
PRIMARY EXAMINER

HENRY HUNG NGUYEN
PRIMARY EXAMINER